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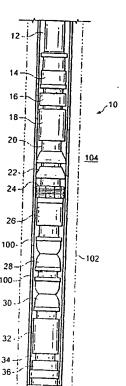
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(54) Title: APPARATUS FOR RADIALLY EXPANDING AND PLASTICALLY DEFORMING A TUBULAR MEMBER

(57) Abstract: An apparatus for radially expanding and plastically deforming a tubular (100).



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X US 5,306,101 A (Rockower et al.) 26 April 1994 (26.04.1994), see entire documer	nt. 1, 13, 26 and 41
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